

# ALAMEDA-CONTRA COSTA TRANSIT DISTRICT



## STAFF REPORT

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**MEETING DATE:** 6/25/2025

**Staff Report No.** 25-346

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**TO:** AC Transit Board of Directors  
**FROM:** Salvador Llamas, General Manager/Chief Executive Officer  
**SUBJECT:** Zero Emission Program Annual Report

### BRIEFING ITEM

**AGENDA PLANNING REQUEST:** ☐

**RECOMMENDED ACTION(S):**

Consider receiving the annual progress report on AC Transit's Zero Emission Program.

Staff Contact:  
Ramakrishna Pochiraju, Executive Director of Planning & Engineering

**STRATEGIC IMPORTANCE:**

Goal - Environmental Improvement  
Initiative - Zero Emission Programs

AC Transit's Zero Emission Bus Transition Plan established the goal to have a 100% Zero Emission Bus (ZEB) fleet by 2040. This report provides the Board with an annual report on progress with the ZEB Transition Plan.

**BUDGETARY/FISCAL IMPACT:**

There are no budgetary or fiscal impacts directly related to this report.

**BACKGROUND/RATIONALE:**

AC Transit is committed to achieving a fully zero-emission bus (ZEB) fleet by 2040. To reach this goal, the agency is conducting a thorough evaluation of available ZEB technologies to identify the most suitable options in terms of operational reliability, cost-effectiveness, resiliency, and long-term sustainability. As an early leader in adopting zero-emission technologies, AC Transit continues to set a standard nationwide by utilizing real-world testing to assess and improve both hydrogen fuel cell and battery-electric platforms.

To date, the District has invested approximately \$417 million in its zero emission program, successfully converting 9% of the fleet to zero-emission vehicles. By 2026, this figure is expected to increase to 17%, supported by facilities capable of servicing 56% of the future ZEB fleet.

To accommodate the expanding hydrogen fleet, the District currently maintains four hydrogen detection-equipped maintenance bays, two each at Division 2 and Division 4. To further enhance safety and operational readiness, the District will issue a Request for Proposal (RFP) to upgrade hydrogen detection systems at

Division 2, Division 4, and the Central Maintenance Facility (CMF). Additionally, the District is in the design phase for a new Division 6 hydrogen fueling station and ZEB maintenance bays as part of its ZEB infrastructure expansion.

Key program achievements to date include:

- More than 30,000 workforce training hours delivered through a ZEB-specific curriculum,
- 7.7 million zero emission miles logged across the fleet, and
- The elimination of over 16,000 metric tons of CO<sub>2</sub> emissions, contributing to the region's climate and air quality goals.

A recent \$44 million federal grant will further support the creation of the Zero Emission Bus University (ZEBU), a flagship clean transit training center, and future procurements aligned with AC Transit's environmental improvement strategic goals.

The accompanying Zero Emission Program Annual Progress Report (Attachment 1) provides a detailed evaluation of technologies beyond the original 5X5 control fleet and summarizes capital investments to date. It includes a financial forecast for full fleet transition, guided by the ZEB Transition Plan and the following principles:

1. Replace the fleet per Federal Transit Administration (FTA) mandated Transit Asset Management (TAM) Plan targets
2. Prioritize ZEB deployment per the AC Transit Board adopted Clean Corridors Plan
3. Procure ZEB's based on vehicle and infrastructure technology capabilities to meet service requirements
4. Deploy ZEB technology that is the most efficient and sustainable to operate
5. Meet the 2040 ICT goal

The total Estimated Cost at Completion (EAC) is projected at \$2 billion, with a current funding gap of \$463 million. The master schedule integrates ongoing projects with the District's Capital Improvement Program (CIP) and TAM Plan, ensuring consistent alignment with long-term strategic goals.

However, several risks may impact program delivery, including federal funding uncertainty, inflation, and supply chain disruptions. As a risk mitigation measure, the District may submit exemption requests to the California Air Resources Board (CARB), allowing flexibility in bus procurements if compliance barriers arise. Additionally, the District remains actively engaged in ARCHES, a California-led public-private partnership supporting green hydrogen innovation and infrastructure development under the Governor's GO-Biz Office.

AC Transit also continues to lead in workforce transformation, with key initiatives including:

- Development of ZEBU and modernization of the Training and Education Center (TEC),
- An accredited mechanic apprenticeship program in partnership with Chabot College, and
- Career ladder pathways for ATU Local 192 members, ensuring a skilled, locally sourced workforce to support ZEB operations.

Through strategic planning, targeted investments, and ongoing workforce development, AC Transit is positioning itself not only to meet state mandates but to lead the nation in sustainable, equitable, and

resilient transit innovation.

**ADVANTAGES/DISADVANTAGES:**

The advantage of the report is that it provides a thorough evaluation of the financial and operational impacts of various ZEB technologies to help inform AC Transit decision making on how to deliver an effective ZEB Transition Plan.

There are no disadvantages to receiving this report.

**ALTERNATIVES ANALYSIS:**

Staff found no practical alternatives to the course of action recommended in this report.

**PRIOR RELEVANT BOARD ACTION/POLICIES:**

Staff Report 22-319: Zero Emission Bus Transition Plan

**ATTACHMENTS:**

1. Zero Emission Program Annual Progress Report

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